



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

*[Handwritten Signature]*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,235	03/15/2001	Bruce Alan Meyer	528-009149-US	5386
2512	7590	10/20/2003	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			TRAN, ANH Q	
		ART UNIT		PAPER NUMBER
		2819		

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/809,235	MEYER ET AL.
	Examiner Anh Q. Tran	Art Unit 2819

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 04 August 2003.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 2-5,7-9,11-23,25-27 and 29-41 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 2-5,7-9,11-23,25-27 and 29-41 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims are rejected under 35 U.S.C. 102(b) as being anticipated by Sugai (5,087,833).

3. Regarding claim 3, Sugai shows a device (Fig. 6, 7) for changing a termination voltage of a differential data bus, the differential data bus comprising a first data bus (12a) and a second data bus (12b), the device comprising:

A first adjustable termination path (14a) connectable to the first data bus;

A second adjustable termination path (14b) connectable to the second data bus; and

A switch (25) connectable in parallel with the first adjustable termination path and the second adjustable termination path;

Wherein the first adjustable termination path is switchable between -2 volts (V<sub>tt</sub>-V<sub>d</sub>, col. 4, lines 22-23) or a short that connects the first data bus and the second data bus.

Regarding claim 2, Sugai shows the differential data bus comprises a differential twisted pair line (col. 6, line 45).

The limitation of claim 4 is rejected as above claim 3.

The apparatus describe above are applicable to the limitations of method claims 8-9, 26-27.

The limitations of claims 12-15, 17, 30-33, and 35 are rejected as above claims.

Regarding claim 37, Sugai shows the switch is direct coupled to each of the first and second adjustable termination path.

Regarding claims 38, 39, Sugai shows the device is not frequency limited and provides a wide bandwidth interface (from 50Hz to higher than 100MHz, col. 1, lines 33-57).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 9, 11, 16, 18, 19-23, 25, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugai (5,087,833).

Sugai disclose the claimed invention except for a field effect transistor switch. It would have been obvious to one having ordinary skill in the art at the time the invention was made to implement switch as a field effect transistor, since it has been held to be within the general skill of a worker in the art to select

a known material (FET, BJT, etc.) on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 18, Sugai disclose the claimed invention except for a first and second bus connectable to the PLD. It would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the first and second bus connectable to the PLD since it was known in the art that a PLD comprises transmit and receive termination.

Regarding claims 37, 40, and 41, Sugai disclose the claimed invention except for omission of a capacitor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to omit a capacitor (28) of Sugai, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art.

### ***Conclusion***

6. Applicant's arguments filed 8/4/03 have been fully considered but they are not persuasive. Applicant argues that "Sugai's patent is not capable of supporting a differential data bus comprised of a differential twisted pair line as claimed". Sugai's patent discloses the invention is for a differential data bus comprised of a differential twisted pair line as claimed (see Sugai' patent in col. 6, lines 13-15 and line 45). Furthermore, Applicant argues that "Sugai's patent does not provides a line to line impedance of the first data bus to the second data bus". Sugai's patent shows a connection between the first data bus and the second data bus (in figure 7, buses 12a and 12b are buses 13a and 13b; when a switch,

Art Unit: 2819

25, is OFF or open, the buses 13a and 13b are shorted or connected through resistors 14a and 14b).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Q. Tran whose telephone number is 703-306-4507. The examiner can normally be reached on M-TH (7:00-5:30) Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 703-305-3493. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Anh Tran

10/8/03

*Michael J. Tokar*  
Michael Tokar  
Supervisory Patent Examiner  
Technology Center 2000